

```
18 19 20
              21
ring nodes :
              5 6 7 8 9 10 11 12 13 14 15
   1 2 3 4
chain bonds :
        3-20 13-18 15-19
   2-21
ring bonds :
   1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10
   11-12 12-13 13-14 13-15 14-17 15-16 16-17
exact/norm bonds :
   2-21 3-20 15-19
exact bonds :
   1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10
   11-12 12-13 13-14 13-15 13-18 14-17 15-16 16-17
isolated ring systems :
   containing 1 :
```

G1:X,Ak,S,N,MeO,EtO,n-PrO,i-PrO

```
Match level:
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom
18:CLASS 19:CLASS 20:CLASS 21:CLASS
```

=> d

L1 HAS NO ANSWERS

G1 X, Ak, S, N, MeO, EtO, n-PrO, i-PrO

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 15:37:45 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 13676 TO ITERATE

7.3% PROCESSED

1000 ITERATIONS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

266519 TO 280521 OT O

PROJECTED ANSWERS:

0 SEA SSS SAM L1 L2

=> s l1 full

FULL SEARCH INITIATED 15:37:49 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 275040 TO ITERATE

100.0% PROCESSED 275040 ITERATIONS

SEARCH TIME: 00.00.11

122 SEA SSS FUL L1

=> d scan

T.3

REGISTRY COPYRIGHT 2004 ACS on STN 122 ANSWERS

Androstane-3,17-diol, 16-(hexahydro-1H-azepin-1-yl)-2-(methylamino)-, IN $(2\beta, 3\alpha, 5\alpha, 16\beta, 17\beta) - (9CI)$

C26 H46 N2 O2 MF

Absolute stereochemistry.

0 ANSWERS

122 ANSWERS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

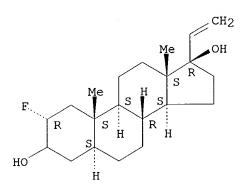
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L3 122 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN 5α , 17α -Pregn-20-ene-3, 17-diol, 2α -fluoro- (7CI)

MF C21 H33 F O2

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 122 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN Androstane-3,16,17-triol, 2-methyl-, $(2\alpha,3\alpha,5\alpha,16\alpha)$

 $,17\alpha)-$ (9CI)

MF C20 H34 O3

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 122 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN IN 5α -Androstane- 2β -carbonitrile, 3α , 17β -dihydroxy- (7CI, 8CI) MF C20 H31 N O2

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL SESSION 155.42 155.63

FULL ESTIMATED COST

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FILE COVERS 1907 - 15 Mar 2004 VOL 140 ISS 12 FILE LAST UPDATED: 14 Mar 2004 (20040314/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4 75 L3

=> d 1-10 ibib abs hitstr

L4 ANSWER 1 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:513220 CAPLUS

DOCUMENT NUMBER:

139:323692

TITLE:

An efficient method for the regioselective aminolysis

of 2,3 α -steroidal epoxide

AUTHOR(S):

Thibeault, Dominic; Poirier, Donald

CORPORATE SOURCE:

Medicinal Chemistry Division, Oncology and Molecular Endocrinology Research Centre, Centre Hospitalier Universitaire de Quebec (CHUQ) and Universite Laval,

Sainte-Foy, QC, G1V 4G2, Can. Synlett (2003), (8), 1192-1194 CODEN: SYNLES; ISSN: 0936-5214

SOURCE:
PUBLISHER:

Georg Thieme Verlag

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 139:323692

GΙ

AB The opening of hindered 2,3 α -steroidal epoxide I with primary and secondary amines was performed nearly quant, with a catalytic amount of Gd(OTf)3 in toluene in a sealed tube at high temperature. This new method is much more efficient (48-97% yields) than the older classical one (0-64% yields) using a large excess of amine.

IT 613661-87-3P 613661-88-4P 613661-89-5P

I

RL: SPN (Synthetic preparation); PREP (Preparation) (efficient method for regionselective aminolysis of 2,3 α -steroidal epoxide)

RN 613661-87-3 CAPLUS

CN Androstane-3,17-diol, 2-(hexylamino)-, $(2\beta, 3\alpha, 5\alpha, 17\beta)$ (9CI) (CA INDEX NAME)

Me (CH₂)
$$\frac{H}{S}$$
 $\frac{Me}{S}$ $\frac{H}{R}$ $\frac{S}{H}$ $\frac{S}{H}$ $\frac{S}{H}$

RN 613661-88-4 CAPLUS

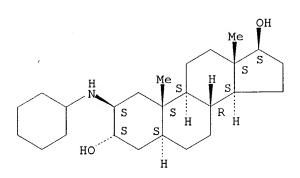
CN Androstane-3,17-diol, 2-(propylamino)-, $(2\beta, 3\alpha, 5\alpha, 17.$ beta .)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 613661-89-5 CAPLUS

CN Androstane-3,17-diol, 2-(cyclohexylamino)-, $(2\beta,3\alpha,5\alpha,17.$ beta.)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:128467 CAPLUS

DOCUMENT NUMBER: 136:274459

TITLE: Gas chromatographic and mass spectrometric analysis of

conjugated steroids in urine

AUTHOR(S): Yoon, Jong Man; Lee, Kyung Ho

CORPORATE SOURCE: Department of Marine Biomedical Science, College of

Ocean Science and Technology, Kunsan National

University, Jeollabuk-do, 573-702, S. Korea

Journal of Biosciences (Bangalore, India) (2001),

26(5), 627-634

CODEN: JOBSDN; ISSN: 0250-5991 Indian Academy of Sciences

PUBLISHER: DOCUMENT TYPE:

Journal

LANGUAGE:

SOURCE .

English

This study was carried out qual. and quant. to investigate the presence and the concns. of anabolic steroids in urine collected from orally administered humans. Microanal. of conjugated steroids by gas chromatog. and mass spectrometry (GC/MS) has been carried out. Following oral administration three major metabolites of anabolic steroid drugs have been detected and partially characterized. The six steroids can be analyzed at the same time in 17 min. The lower detection limit was 10 ng/mL in 5 mL of urine. The conjugated steroids from urine were centrifuged to 2,430 g for 10 min, the supernatant solution passed through Amberlite XAD-2 column and the steroids eluted fraction esterified by using MSTFA and TMSI. The rate of metabolism and urinary excretion seem to be reasonably fast.

104413-39-0 IT

RL: ANT (Analyte); ANST (Analytical study)

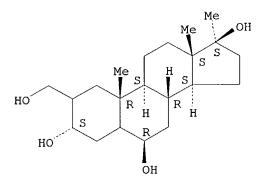
(gas chromatog. and mass spectrometric anal. of conjugated steroids in

RN 104413-39-0 CAPLUS

Androstane-3,6,17-triol, 2-(hydroxymethyl)-17-methyl-, CN

 $(3\alpha, 6\beta, 17\beta)$ – (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS 15 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1998:225247 CAPLUS

DOCUMENT NUMBER:

129:660

TITLE:

Gas chromatographic/mass spectrometric

characterization of dromostanolone metabilites in

human urine

AUTHOR(S):

Kim, Taewook; Choi, Man Ho; Jung, Byung Hwa; Chung,

Bong Chul

CORPORATE SOURCE:

Bioanalysis and Biotransformation Research Center, Korea Institute of Science and Technology, Seoul,

136-791, S. Korea

SOURCE:

Bulletin of the Korean Chemical Society (1998), 19(2),

194-196

CODEN: BKCSDE; ISSN: 0253-2964

PUBLISHER:

Korean Chemical Society

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The metabolism of dromostanolone $(2\alpha-\text{methyl}-5\alpha-\text{androstan}-17\beta-$ AB ol-3-one) was studied in three adult volunteers after oral dose of 20 mg. Solvent exts. of urine obtained after enzyme hydrolysis were derivatized with MSTFA/TMCS and MSTFA/TMIS. The structures of intact drug and its metabolites were determined by gas chromatog./mass spectrometry (GC/MS) in electron impact (EI) mode. The major metabolite $(2\alpha\text{-methyl}-5\alpha\text{-}$ androstan- 3α -ol-17-one), its 3β -epimer, parent compound, and several hydroxylated metabolites including intact drug were detected by comparing total ion chromatograms of control urine with that of the administered sample. Two epimers of 2α -methyl- 5α -androstan- 3.17β -diol were detected using selected ion monitoring. The maximum excretion of dromostanolone and 2α -methyl- 5α -androstan- 3α -ol-17-one was reached in 6.2-15 h. The half-life of intact dromostanolone was 5.3 h. About 3.0% of the administered amount was found to be excreted within 95 h as unchanged form.

IT 5197-60-4 6022-07-7

RL: ANT (Analyte); BSU (Biological study, unclassified); MFM (Metabolic formation); ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative)

(gas chromatog./mass spectrometric characterization of dromostanolone metabilites in human urine)

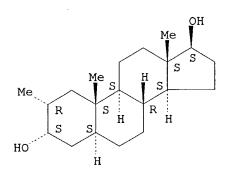
RN 5197-60-4 CAPLUS

CN Androstane-3,17-diol, 2-methyl-, $(2\alpha, 3\beta, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 6022-07-7 CAPLUS CN Androstane-3,17-diol, 2-methyl-, $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:441224 CAPLUS

DOCUMENT NUMBER:

119:41224

TITLE:

Metabolism of anabolic steroids in man: synthesis and

use of reference substances for identification of

anabolic steroid metabolites

AUTHOR(S):

Schaenzer, Willi; Donike, Manfred

CORPORATE SOURCE:

Dtsch. Sporthochschule Koeln, Inst. Biochem.,

Carl-Diem-Weg 6, 5000, Cologne, Germany

SOURCE:

Analytica Chimica Acta (1993), 275(1-2), 23-48

CODEN: ACACAM; ISSN: 0003-2670

DOCUMENT TYPE:

Journal

LANGUAGE:

English

The use of anabolic steroids was banned by the International Olympic AB Committee for the first time at the Olympic Games in Montreal in 1976. Since that time the misuse of anabolic steroids by athletes has been controlled by anal. of urine exts. by gas chromatog.-mass spectrometry (GC-MS). The excreted steroids or their metabolites, or both, are isolated from urine by XAD-2 adsorption, enzymic hydrolysis of conjugated excreted metabolites with β -glucuronidase from Escherichia coli, liquid-liquid extraction with di-Et ether, and converted into trimethylsilyl

(TMS)

The confirmation of an anabolic steroid misuse is based on derivs. comparison of the electron impact ionization (EI) mass spectrum and GC retention time of the isolated steroid and/or its metabolite with the EI mass spectrum and GC retention time of authentic reference substances. For this purpose excretion studies with the most common anabolic steroids were performed and the main excreted metabolites were synthesized for bolasterone, boldenone, 4-chlorodehydromethyltestosterone, clostebol, drostanolone, fluoxymesterone, formebolone, mestanolone, mesterolone, metandienone, methandriol, metenolone, methyltestosterone, nandrolone, norethandrolone, oxandrolone, and stanozolol. The metabolism of anabolic steroids, the synthesis of their main metabolites, their GC retention and EI mass spectra as TMS derivs. are discussed.

TΤ 148505-58-2

RL: BIOL (Biological study)

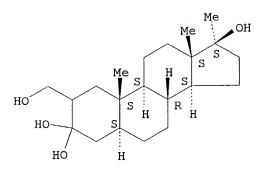
(as oxymetholone metabolite, in urine of human)

RN 148505-58-2 CAPLUS

Androstane-3,3,17-triol, 2-(hydroxymethyl)-17-methyl-, CN

 $(5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



ANSWER 5 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

1993:52632 CAPLUS ACCESSION NUMBER:

118:52632 DOCUMENT NUMBER:

Studies on anabolic steroids. 10. Synthesis and TITLE: identification of acidic urinary metabolites of

oxymetholone in a human

AUTHOR(S): Bi, Honggang; Masse, Robert; Just, George

Inst. Nat. Rech. Sci., Univ. Quebec, Pointe-Claire,

QC, H9R 1G6, Can.

Steroids (1992), 57(9), 453-9 SOURCE:

CODEN: STEDAM; ISSN: 0039-128X

DOCUMENT TYPE:

CORPORATE SOURCE:

LANGUAGE:

Journal English

GΙ

Two major unconjugated acidic metabolites of oxymetholone (I), e.g., AΒ 17β -hydroxy- 17α -methyl-2,3-seco- 5α -androstane-2,3-dioic acid (II) and 3α , 17β -dihydroxy- 17α -methyl- 5α androstane- 2β -carboxylic acid (III), were detected by gas chromatog./mass spectrometry in urine samples collected after oral administration of I to a human volunteer. The reference steroid II was synthesized and identified. The identification of urinary metabolite III was based on the synthesis of its stereoisomers and the isomerization of the Me ester of III to its 2-epimer, 3α , 17β -dihydroxy- 17α methyl-5 α -androstane-2 α -carboxylic acid Me ester (IV). The mechanisms accounting for the formation of these acidic metabolites are discussed.

141691-37-4P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrolysis-isomerization of)

RN141691-37-4 CAPLUS

Androstane-2-carbonitrile, 3,17-dihydroxy-17-methyl-, CN $(2\beta, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

IT 141691-33-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and identification of, as oxymetholone metabolite in humans)

RN 141691-33-0 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-,

 $(2\beta, 3\alpha, 5\alpha, 17\beta)$ – (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 145486-81-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and isomerization of)

RN 145486-81-3 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, methyl ester, $(2\beta, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 141691-38-5P 145459-03-6P 145459-06-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and methylation of)

RN 141691-38-5 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145459-03-6 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, $(2\beta, 3\beta, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145459-06-9 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, $(2\alpha, 3\beta, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 141691-39-6P 145459-04-7P 145459-05-8P

145459-07-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 141691-39-6 CAPLUS

CN Androstane-2-d-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145459-04-7 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, methyl ester, $(2\beta,3\beta,5\alpha,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145459-05-8 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, methyl ester, $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 145459-07-0 CAPLUS

CN Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, methyl ester, $(2\alpha, 3\beta, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

ANSWER 6 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1992:605210 CAPLUS

DOCUMENT NUMBER:

117:205210

TITLE:

Use of 2β , 16β -diamino- 3α , 17-

dihydroxyandrostane derivatives for the treatment of

arrhythmic disorders

INVENTOR(S):

Kellock, John; Taylor, Robert; Campbell, John;

Winslow, Eileen

PATENT ASSIGNEE(S):

AKZO N. V., Neth.

SOURCE:

Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.				KIND DATE				API	APPLICATION NO			Э.	DATE			
	EP 496134			A1	1992	0729		EP	1991-203327			7	1991				
		R:	AT,	BE,	CH, D	E, DK,	ES,	FR, C	3B, 0	SR,	ΙΤ,	LI,	LU,	MC,		SE	
	ZA	9109	813		Α	1992	1230		z_{A}	199	1-98	13		1991	1212		
	ΑU	9189	737		A1	1992	0625		AU	199	1-89	737		1991	1216		
	AU	6458	369		B2	1994	0127										
	CA	2058	3100		AA	1992	0622		CA	199	1-20	5810	00	1991	1219		
	JΡ	0429	5493		A2	1992	1020		JP	199	1-33	7484	4	1991	1220		
PRIOF	RITY	APE	PLN. I	INFO.	:			EI	199	0-3	1417	8		1990	1221		
משאייו	2 50	NIBCE	1/21:		1∨	TARPAT	117:2	05210)								

OTHER SOURCE(S):

GI

$$\begin{array}{c|c} \text{OH} & \text{OH} \\ \text{Me} & \text{NR}^3 \text{R}^4 \\ \text{Ho} & \text{I} \end{array}$$

The title compds. I [R1-R4 = H, C1-6 alkyl, C7-12 aralkyl, C2-6 acyl,AB (C1-6 alkyl-substituted) C3-7 cycloalkyl, or R1NR2 and/or R3NR4 forms a (C1-6 alkyl-substituted) 5-, 6-, or 7-membered ring; twitched line = α or β bond] and pharmaceutically acceptable salts thereof are useful for the treatment of arrhythmic disorders. The in vivo ED50 value for 22 I was determined for monophasic ventricular ECG prolongation during pacing. Tablet and injection formulations are disclosed. A tablet composition contained 2β , 3α , 5α , 16β , 17β -2-amino-16-(1-piperidinyl)-androstane-3, 17-diol-HCl (1:2) 250, hydroxypropyl cellulose 21.0, corn starch 70.0, Mg stearate 5.25, colloidal SiO2 10.5 and lactose 200M to 700 mg/tablet. 128609-30-3 144209-30-3 144209-31-4

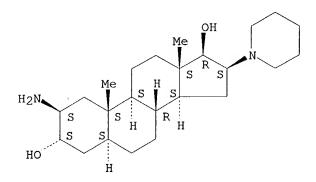
IT 128609-30-3 144209-30-3 144209-31-4 144209-32-5 144209-35-8 144209-37-0 144209-39-2 144209-40-5 144209-41-6 144209-42-7 144209-44-9 144209-46-1 RL: BIOL (Biological study)

(antiarrhythmic)

RN 128609-30-3 CAPLUS

CN Androstane-3,17-diol, 2-amino-16-(1-piperidinyl)-, $(2\beta, 3\alpha, 5\alpha, 16\beta, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 144209-30-3 CAPLUS CN Androstane-3,17-diol, 2-[(1,1-dimethylethyl)amino]-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 144209-31-4 CAPLUS CN Androstane-3,17-diol, 2-(methylamino)-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

RN 144209-32-5 CAPLUS CN Androstane-3,17-diol, 2-(dimethylamino)-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 144209-35-8 CAPLUS CN Androstane-3,17-diol, 2-(cyclohexylamino)-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 144209-37-0 CAPLUS CN Androstane-3,17-diol, 16-(hexahydro-1H-azepin-1-yl)-2-(methylamino)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

RN 144209-39-2 CAPLUS

CN Acetamide, $N-[(2\beta, 3\alpha, 5\alpha, 16\beta, 17\beta)-3, 17-dihydroxy-16-(1-piperidinyl)androstan-2-yl]-N-methyl- (9CI) (CA INDEX NAME)$

Absolute stereochemistry.

RN 144209-40-5 CAPLUS

CN Acetamide, $N-[(2\beta, 3\alpha, 5\alpha, 16\beta, 17\alpha)-3, 17-dihydroxy-16-(1-piperidinyl)androstan-2-yl]-N-methyl- (9CI) (CA INDEX NAME)$

Absolute stereochemistry.

RN 144209-41-6 CAPLUS

CN Androstane-3,17-diol, 2-amino-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\alpha)$ - (9CI) (CA INDEX NAME)

RN 144209-42-7 CAPLUS CN Androstane-3,17-diol, 2-[(phenylmethyl)amino]-16-(1-piperidinyl)-, $(2\beta, 3\alpha, 5\alpha, 16\beta, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 144209-44-9 CAPLUS CN Androstane-3,17-diol, 2,16-bis[(1,1-dimethylethyl)amino]-, $(2\beta,3\alpha,5\alpha,16\beta,17\alpha)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 144209-46-1 CAPLUS CN Androstane-3,17-diol, 2,16-bis[(1,1-dimethylethyl)methylamino]-, $(2\beta,3\alpha,5\alpha,16\beta,17\alpha)$ - (9CI) (CA INDEX NAME)

IT 144231-01-6D, derivs.

RL: BIOL (Biological study)

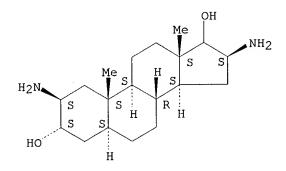
(antiarrhythmics)

RN 144231-01-6 CAPLUS

CN Androstane-3,17-diol, 2,16-diamino-, $(2\beta,3\alpha,5\alpha,16\beta)$ -

(9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 144209-47-2 144209-48-3 144209-49-4

RL: BIOL (Biological study)

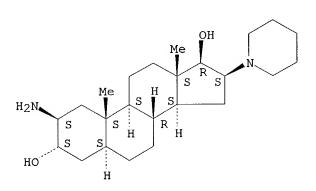
(tablet of, for antiarrhythmic)

RN 144209-47-2 CAPLUS

CN Androstane-3,17-diol, 2-amino-16-(1-piperidinyl)-, dihydrochloride,

 $(2\beta, 3\alpha, 5\alpha, 16\beta, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

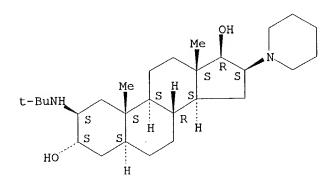


●2 HCl

RN 144209-48-3 CAPLUS

CN Androstane-3,17-diol, 2-[(1,1-dimethylethyl)amino]-16-(1-piperidinyl)-, dihydrochloride, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

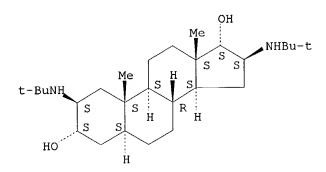


●2 HCl

RN 144209-49-4 CAPLUS

CN Androstane-3,17-diol, 2,16-bis[(1,1-dimethylethyl)amino]-, dihydrochloride, (2 β ,3 α ,5 α ,16 β ,17 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 HC1

L4 ANSWER 7 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:463110 CAPLUS

DOCUMENT NUMBER: 117:63110

TITLE: The methyl- 5α -dihydrotestosterones mesterolone

and drostanolone; gas chromatographic/mass spectrometric characterization of the urinary

metabolites

AUTHOR(S): De Boer, D.; De Jong, E. G.; Maes, R. A. A.; Van

Rossum, J. M.

CORPORATE SOURCE: Netherlands Inst. Drugs Doping Res., Utrecht, 3584 CA,

Neth.

SOURCE: Journal of Steroid Biochemistry and Molecular Biology

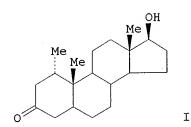
(1992), 42(3-4), 411-19

CODEN: JSBBEZ; ISSN: 0960-0760

DOCUMENT TYPE: LANGUAGE:

Journal English

GI



Before including the detection of the methyl-5 α -dihydrotestosterones mesterolone (I) and its 2-Me analog drostanolone, in doping control procedures, their urinary metabolites in humans were characterized by gas chromatog./mass spectrometry. Several metabolites were found after enzymic hydrolysis and conversion of the resp. metabolites to their trimethylsilyl-enol-trimethylsilyl ether derivs. The major metabolites of I and drostanolone were identified as 1α -methyl-androsterone and 2α -methyl-androsterone, resp. The parent compds. and the intermediate 3α , 17β -dihydroxy steroid metabolites were detected as well. The reduction into the corresponding 3β -hydroxy steroids was a minor metabolic pathway. All metabolites were conjugated to glucuronic acid.

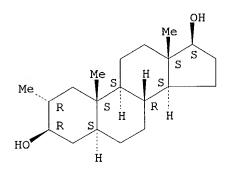
IT 5197-60-4 6022-07-7 RL: PRP (Properties)

(gas chromatog.-mass spectrum of)

RN 5197-60-4 CAPLUS

CN Androstane-3,17-diol, 2-methyl-, $(2\alpha, 3\beta, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 6022-07-7 CAPLUS CN Androstane-3,17-diol, 2-methyl-, $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ -(9CI) (CA INDEX NAME)

L4 ANSWER 8 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1992:420715 CAPLUS

DOCUMENT NUMBER:

117:20715

TITLE:

Studies on anabolic steroids-8. GC/MS

characterization of unusual seco acidic metabolites of

oxymetholone in human urine

AUTHOR(S):

Bi, Honggang; Du, Ping; Masse, Robert

Univ. Quebec, Pointe-Claire, QC, H9R 1G6, Can.

CORPORATE SOURCE: SOURCE:

Journal of Steroid Biochemistry and Molecular Biology

(1992), 42(2), 229-42

CODEN: JSBBEZ; ISSN: 0960-0760

DOCUMENT TYPE:

LANGUAGE:

Journal English

GI

I, R=CHO, $R^1R^2=0$ II, R=H, $R^1R^2=0$

VII, $R=HO_2C$, $R^1=HO$, $R^2=H$

III, $R=R^1=HO_2CCH_2$

IV, R=HO2CCH2CH2, R1=HO2CCH2

V, $R=HO_2C$, $R^1=HO_2CCH_2$

VI, $R=HO_2CCH_2$, $R^1=HO_2C$

One of the biotransformation routes of oxymetholone (I) in man leads to the formation of mestanolone (II). To demonstrate that this steroid may be formed by decarboxylation of an intermediate metabolite of I bearing a 2-carboxylic group, the authors studied the urinary excretion of I acidic metabolites. Five new acidic metabolites are reported here for the 1st time, among which 4 are unusual seco steroids resulting from the oxidative cleavage of the A-ring. The most abundant compound is III, the cumulative excretion of which accounted for 1.52% of the dose. Three other seco diacids were produced in smaller amts., namely IV-VI. The fifth acidic metabolite was identified as VII. The excretion in urine of these acidic metabolites suggests that the 2-hydroxymethylene group in I is readily

oxidized to yield the corresponding β -keto acid which can be (1) decarboxylated to form mestanolone; (2) reduced at C-3 to give VII; and (3) further oxidized to afford the unexpected seco diacids III-VI. identity of compds. III and VII was ascertained by GC/MS and 1H and 13C-NMR anal. of reference compds. The other metabolites were characterized by GC/MS anal.

141691-33-0 IT

RL: BIOL (Biological study) (as oxymetholone metabolite, in human urine, gas chromatog.-mass spectra anal. of) 141691-33-0 CAPLUS

RN

Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, CN $(2\beta, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

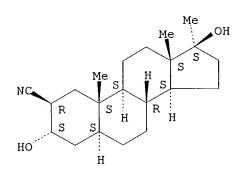
Absolute stereochemistry.

141691-37-4P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and hydrolysis of) 141691-37-4 CAPLUS

RN Androstane-2-carbonitrile, 3,17-dihydroxy-17-methyl-, CN $(2\beta, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



141691-38-5P 141691-39-6P IT

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

141691-38-5 CAPLUS RN

Androstane-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, CN $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

RN 141691-39-6 CAPLUS

CN Androstane-2-d-2-carboxylic acid, 3,17-dihydroxy-17-methyl-, $(2\alpha, 3\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L4 ANSWER 9 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

1990:478806 CAPLUS

DOCUMENT NUMBER:

113:78806

TITLE:

Synthesis of 3α -amino- 2β -dihydroxy- 16β -

piperidino- 5α -androstane and 2β -amino- 3α , 17β -dihydroxy- 16β -

piperidino-5α-androstane

AUTHOR(S):

Xu, Xiaoyan; Liao, Qingjiang; Xiang, Manwen

CORPORATE SOURCE:

Coll. Pharm., China Pharm. Univ., Nanjing, Peop. Rep.

China

SOURCE:

Youji Huaxue (1989), 9(5), 451-4

CODEN: YCHHDX; ISSN: 0253-2786

DOCUMENT TYPE:

Journal

LANGUAGE:

Chinese

OTHER SOURCE(S):

CASREACT 113:78806

GΙ

Starting from epiandrosterone, 3α -amino- 2β , 17β -dihydroxy- 16β -piperidino- 5α -androstane (I) was prepared via 2β , 3β -epoxy- 5α -androst-17-one and 2β -amino- 3α , 17β -dihydroxy- 16β -piperidino- 5α -androstane (II) was prepared via 2α , 3α -epoxy- 5α -androst-17-one. An improved synthesis of 3α -azido- 2β -hydroxy- 5α -androst-17-one was described.

IT 128609-29-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reduction of)

RN 128609-29-0 CAPLUS

CN Androstane-3,17-diol, 2-azido-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

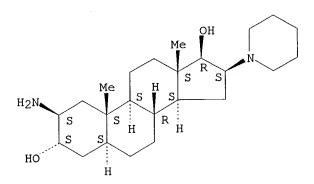
IT 128609-30-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 128609-30-3 CAPLUS

CN Androstane-3,17-diol, 2-amino-16-(1-piperidinyl)-, $(2\beta,3\alpha,5\alpha,16\beta,17\beta)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 10 OF 75 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1989:39241 CAPLUS

DOCUMENT NUMBER: 110:39241

TITLE: Reaction of some steroidal γ , δ -unsaturated

alcohols with thallium(III) nitrate. Preparation of some steroidal derivatives having a hetero ring fused

to the A ring

Forcellese, Maria Luigia; Cardillo, Luisa; Mincione, AUTHOR(S):

Enrico

Journal

English

Cent. Stud. Chim. Sostanze Org. Nat., CNR, Rome, CORPORATE SOURCE:

I-00185, Italy

Gazzetta Chimica Italiana (1988), 118(6), 465-8 SOURCE:

CODEN: GCITA9; ISSN: 0016-5603

DOCUMENT TYPE:

LANGUAGE:

OTHER SOURCE(S):

CASREACT 110:39241

GΙ

Tl(NO3)3 reacts with steroidal γ, δ -unsatd. alcs. to give THF ΑB derivs. and γ -hydroxy ketones. Oxidation of these latter leads to 1,4-dicarbonyl compds. that are converted into pyrrole or furan derivs. Thus, cholestane I was converted into pyrrole II.

118348-59-7P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and oxidation of)

118348-59-7 CAPLUS RN

2-Propanone, 1- $[(2\beta, 3\alpha, 5\alpha, 17\beta)$ -3,17-dihydroxy-17-CN methylandrostan-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

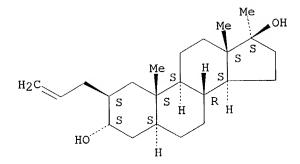
57901-47-0P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction with thallium nitrate)

57901-47-0 CAPLUS RN

Androstane-3,17-diol, 17-methyl-2-(2-propenyl)-, CN $(2\beta, 3\alpha, 5\alpha, 17\beta)$ - (9CI)(CA INDEX NAME)



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                 DGENE: Two new display fields added
         DEC 17
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         DEC 18
                 CROPU no longer updated; subscriber discount no longer
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         DEC 19
                 available
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         DEC 22
NEWS 17
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                 Source of Registration (SR) information in REGISTRY updated
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                 and searchable
                 A new search aid, the Company Name Thesaurus, available in
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                 German (DE) application and patent publication number format
         FEB 05
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NEWS 25 MAR 03 FRANCEPAT now available on STN
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L1 STRUCTURE UPLOADED

=> d L1 HAS NO ANSWERS L1 STR

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=> s 11 SAMPLE SEARCH INITIATED 14:07:27 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 10452 TO ITERATE

9.6% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

38 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE** BATCH

COMPLETE

PROJECTED ITERATIONS:

202916 TO 215164

PROJECTED ANSWERS:

6748 TO 9138

L2

38 SEA SSS SAM L1

=> d

ANSWER 1 OF 38 REGISTRY COPYRIGHT 2004 ACS on STN L2

613661-88-4 REGISTRY RN

Androstane-3,17-diol, 2-(propylamino)-, $(2\beta, 3\alpha, 5\alpha, 17.beta$ CN

.) - (9CI) (CA INDEX NAME)

STEREOSEARCH FS

C22 H39 N O2 MF

SR CA

LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 12 38

ANSWER 38 OF 38 REGISTRY COPYRIGHT 2004 ACS on STN L2

RN15410-34-1 REGISTRY

Estra-1,3,5(10)-triene-3,17 β -diol, 2-[(benzyloxy)methyl]-17-methyl-CN

(7CI, 8CI) (CA INDEX NAME)

STEREOSEARCH FS

C27 H34 O3 MF

CA, CAOLD, CAPLUS LCSTN Files:

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d 12 35

L2 ANSWER 35 OF 38 REGISTRY COPYRIGHT 2004 ACS on STN

RN 51911-17-2 REGISTRY

CN Androstane-3,17-diol, 4-methyl-, $(3\beta, 4\alpha, 5\alpha, 17\beta)$ - (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 4α -Methyl- 5α -androstan- 3β - 17β -diol

FS STEREOSEARCH

MF C20 H34 O2

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=>
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L3 STRUCTURE UPLOADED

=> d

L3 HAS NO ANSWERS

L3 STR

Structure attributes must be viewed using STN Express query preparation.

=> s 13

SAMPLE SEARCH INITIATED 14:10:05 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 10452 TO ITERATE

5 ANSWERS

9.6% PROCESSED 1000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

202916 TO 215164

PROJECTED ANSWERS:

612 TO 1478

L4

5 SEA SSS SAM L3

=> d 14 5

L4 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN

RN 21935-69-3 REGISTRY

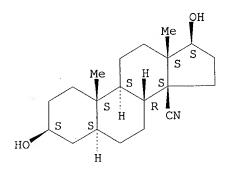
CN 5α , 14β -Androstane-14-carbonitrile, 3β , 17β -dihydroxy-

(8CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H31 N O2

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> d 14 2-4

L4 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN

RN 446293-54-5 REGISTRY

CN Androstane-3,17-diol, 17-(1,2-dihydroxypropyl)-,

 $(3\alpha, 5\alpha, 17\alpha)$ - (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H38 O4

SR Reaction Database

LC STN Files: CASREACT

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
L4 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN RN 123714-04-5 REGISTRY
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CN Estradiene-3,17-diol (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C18 H26 O2.

CI IDS

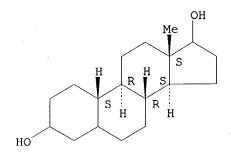
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 65556-20-9 CMF C18 H30 O2

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L4 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN

RN 56016-52-5 REGISTRY

CN Estrane-3,5,10,17-tetrol, 10-acetate, $(3\beta,5\alpha,17\beta)$ - (9CI) (CA INDEX NAME)

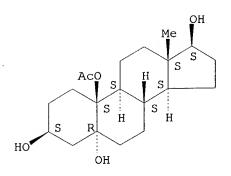
OTHER NAMES:

CN 10-Acetoxy- 5α -estrane- 3β , 5, 17 β -triol

FS STEREOSEARCH

MF C20 H32 O5

LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)